

Amendments to the Claims:

Replace all prior versions and listings of claims in the application with the following list of claims.

1. (currently amended) A method implemented on a computer for pricing a financial derivative of a non-marketed variable x_e , the method comprising:
 - a) ~~determining a market representative x_m useful in determining a value of the financial derivative;~~
 - b) retrieving from a storage medium into memory of the computer information associated with the non-marketed variable x_e and ~~the a~~ market representative x_m [[:]] , wherein the market representative x_m is useful in determining a value of the financial derivative;
 - c) calculating on the computer a solution to an equation involving a price of the financial derivative $V(x_e, t)$ defined as a function of x_e and time t , wherein the equation comprises a coefficient involving the information associated with x_e and x_m ; and
 - d) generating on the computer an output including the calculated price of the financial derivative;

wherein the information associated with x_e and x_m comprises a drift rate of the non-marketed variable x_e , and a drift rate of the market representative x_m ;

wherein the information associated with x_e and x_m comprises variances of the non-marketed variable x_e and the market representative x_m , and a covariance between the non-marketed variable x_e and the market representative x_m ;

wherein the coefficient involving the information associated with x_e and x_m has the form $\mu_e - \beta_{em}(\mu_m - r)$, where μ_e is a drift rate of the non-marketed variable x_e , μ_m is a drift rate of the market representative x_m , r is an interest rate, and β_{em} is a factor derived from a variance of the market representative x_m and a covariance between the non-marketed variable x_e and the market representative x_m ;

wherein the market representative x_m comprises a marketed asset or combination of such assets that is approximately most correlated with the non-marketed variable x_e [[:]] ;

wherein the equation is an extended Black-Scholes equation obtained from a standard Black-Scholes equation by replacing, in a term involving a first-order partial derivative of $V(x_e, t)$ with respect to x_e , a coefficient r , representing an interest rate, by the coefficient involving the information associated with x_e and x_m .

2. (cancelled).
3. (cancelled).
4. (cancelled).
5. (cancelled).
6. (cancelled).
7. (original) The method of claim 1 wherein the equation is a discrete-time equation involving $V(x_e, t)$ defined as a function of x_e and discrete time points $t = k$.
8. (cancelled).
9. (original) The method of claim 1 wherein the market representative x_m comprises a combination of multiple marketed assets associated with market sectors most closely associated with the non-marketed variable x_e .
10. (original) The method of claim 1 wherein the market representative x_m comprises a marketed asset or combination of such assets that is approximately equal to an overall market portfolio.
11. (original) The method of claim 1 further comprising calculating an optimal hedge.
12. (original) The method of claim 1 further comprising calculating a minimum variance of the error between an optimal hedge and the calculated price of the financial derivative.
13. (original) The method of claim 1 wherein the equation represents a risk-neutral discounted expected value of cash flows of the financial derivative.

14. **(original)** The method of claim 13 wherein a cash flow of the financial derivative is path-dependent.
15. **(original)** The method of claim 1 applied to derivatives of a set of non-marketed variables wherein the market representative x_m comprises a combination of multiple marketed assets, each most-correlated with a different non-marketed variable in the set of non-marketed variables.
16. **(original)** The method of claim 1 wherein the calculated price of the financial derivative includes cash flows at an intermediate time and a terminal time.
17. **(original)** The method of claim 1 wherein drift rates, an interest rate, variances, and covariances of x_e and x_m either vary with time or are governed by stochastic processes.
18. **(original)** The method of claim 1 wherein the cash flow depends on marketed variables as well as non-marketed variables.
19. **(original)** The method of claim 1 wherein the equation involves additional non-marketed variables.
20. **(original)** The method of claim 1 wherein the market representative is derived from a combination of multiple marketed variables, and wherein x_e and the multiple marketed variables are governed by either geometric Brownian motion or alternative processes.
21. **(cancelled)**.
22. **(cancelled)**.
23. **(cancelled)**.
24. **(cancelled)**.
25. **(cancelled)**.
26. **(cancelled)**.

27. (cancelled).
28. (cancelled).
29. (cancelled).
30. (cancelled).
31. (cancelled).